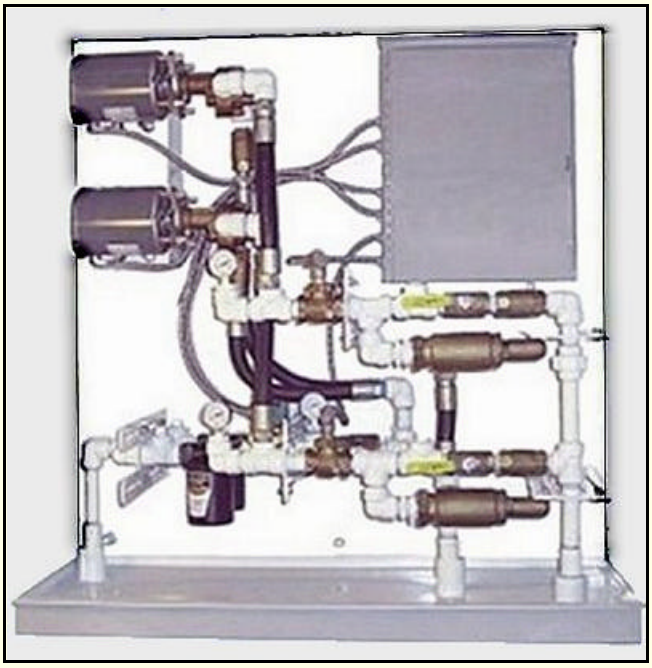
PRYCO, INC.

PUMP SETS

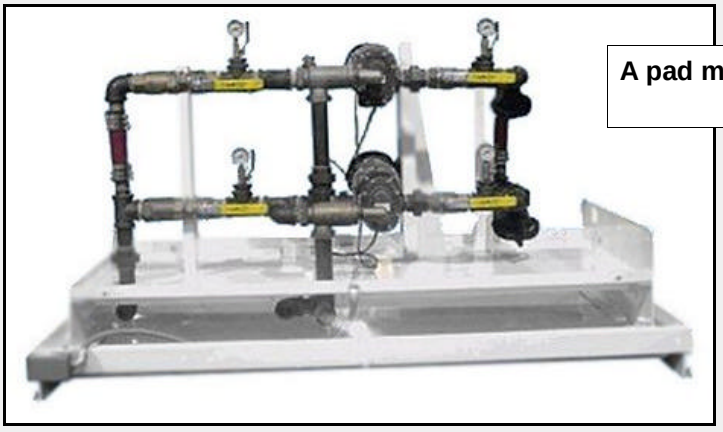


A wall mounted, duplex system pump set (Model #PYPS2200) with a large array of options. Pump sets may be ordered with or without an optional (#338) enclosure (open style shown here).

Pryco Pump Sets are high performance fuel system drivers. They are fully integrated, pre-plumbed and pre-wired for trouble-free, "connect and go" installation. We offer a wide range of configurations that will fulfill your requirements. They are intended to transfer #2 fuel oil within an emergency generator system or oil burners.

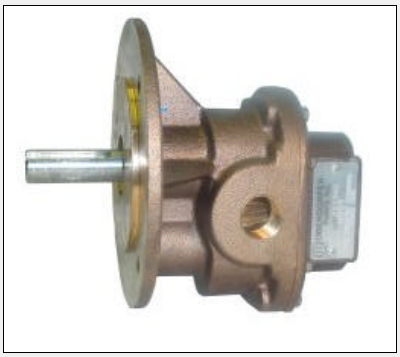
The following configurations are available:

- Model # **PYPS1000** series — "pad" designed for floor placement
- Model # **PYPS2000** series — for wall or pedestal mount
- Model # **PYPS3000** series — custom design for special requirements



A pad mounted—Model #PYPS1200, duplex pump set .

PUMP SETS



For commercial and industrial reliability, we use positive displacement, self-lubricating, bronze rotary gear pumps with stainless steel shafts from Oberdorfer . We offer an assortment of six models of pumps ranging from 2 GPM up to 40 GPM. (Shown to the right is Oberdorfer's #994 — 10GPM pump.) These pumps are close coupled to a motor chosen to match your flow rate and other specific requirements (refer to Pump/ Motor Sizing on pages PS5-PS6).

A single 2-GPM pump and 1/3 HP motor (and related controls) are standard with all pump sets ("PYPS") configurations. Optionally available are duplex and triplex pumps/motors (even a quadplex in custom designs) with lead/lag switching and sequencing. All models have common intake and output ports.

The control system receives fuel level signals from our standard remote float switch design. Or, you may optionally choose our Fuel Control and Monitoring (FCM) system. Both control systems are housed in a NEMA-3R rated enclosure.

Depending upon your requirements, the pump set may be housed within an optional NEMA-1 or NEMA-3R rated enclosure (see the ENCLOSURES section below).

STANDARD FEATURES

- Fully Factory Assembled
- Heavy Gauge Steel throughout
- 2 GPM Pump & 1/3 HP Motor (same as day tanks)
- High Pressure, Crimp Hose connections for easy maintenance
- Drip Pan with ½ " Drain Plug Port
- Priming Tee on intake (#312)
- 3" Formed Channel Legs on Pad Floor (PYPS1000) designs
- Common Ports - Suction & Discharge (Size: ½", 1", 1¼", 1½", and 2")
- Interface with Tank Control Circuits
- Gray or Industrial Color Paint

OPTIONAL ACCESSORIES

Pump set accessories generally parallel those of a day tank. Shown on the next page is a list of those options that are most often chosen for pump sets. If an option is not shown here, check the "OPTIONS" section of this catalog. Also, if more pumping capacity or greater power is required, please refer to the later section — "Pump / Motor Sizing" .

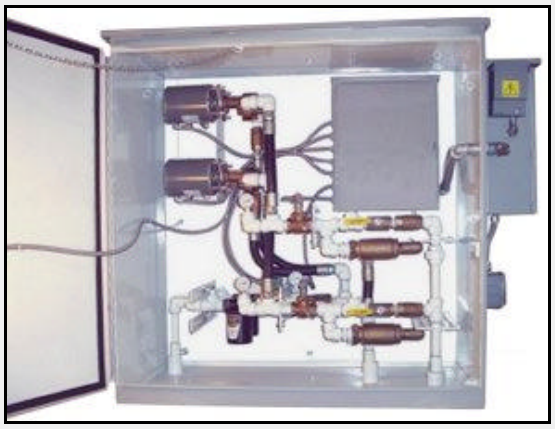
OPTIONAL ACCESSORIES

OPTION CODE	DESCRIPTION
313	Compound Pressure/Vacuum Gauge
314	Fuel Strainer 40 Mesh 2" (23-40 GPM Pumps) (**316A** — Replacement Filter & Gasket for Option #314)
315	Fuel Strainer 60 Mesh 1" (2-10 GPM Pumps) (**316B** — Replacement Filter & Gasket for Option #315)
317	Duplex Fuel Strainer
318	Fuel Filter / Water Separator
338	Enclosures, Pump Set (See **ENCLOSURE** Section page PS-4)
339	Enclosure Door Interlock with Circuit Breaker
355	Check Valve to prevent loss of prime
370	Manual Cut-Off Ball Valve for Pump Isolation
372	Flow Switch to detect "no fuel in line" condition
379	External Pressure Relief By-Pass Valve
4xx	Pump & Motor (Other Than Standard) sized according to your specification (See **PUMP / MOTOR SIZING** Section Below)
442 & 443	Motor Starters
427	Duplex (Second Standard) Pump and Motor
427A	Duplex Pump Alternator Transfer Switch (includes Second Standard Pump and Motor)
427S	Triplex (Second and Third Standard) Pump and Motor
427T	Triplex Pump Sequencer Switch (includes Second and Third Standard Pump and Motor)

ENCLOSURE

When a vulnerable pump sets needs protection, our option #**338** enclosures is the right answer. These NEMA1 and NEMA-3R enclosures feature:

- heavy 12 gauge steel
- a lockable door with a continuous hinge (this can be complimented with an optional door interlock that requires the system to be shut down before the door is opened)
- protected openings for adequate ventilation



The outside and inside view of an option #338 enclosure for a pump set similar to the one shown on page PS-1. The unit illustrated above has option #339, Door Interlock that requires the system to be shut down before the door is opened.

The different configurations of enclosures are shown below:

338 CODE SUFFIX	ASSOCIATED MODEL NUMBER	NEMA RATING	PUMP CONFIGUTATION
A	PYPS2100	1	SINGLE PUMP
B	PYPS2200	1	DUPLEX PUMP
C	PYPS2100	3R	SINGLE PUMP
D	PYPS2200	3R	DUPLEX PUMP
E	PYPS1100	1	SINGLE PUMP
F	PYPS1200	1	DUPLEX PUMP
G	PYPS1100	3R	SINGLE PUMP
H	PYPS1200	3R	DUPLEX PUMP
X	PYPS3000	—	(ALL)

TECHNICAL NOTES

PUMP / MOTOR SIZING

The flow rate and pressure determine the size of pump and motor. Select pump motor by horsepower rating & characteristics.

2 GPM PUMP - 1800 RPM MOTOR @ 60° F.

PRES-SURE (PSI)	FLOW RATE (GPM)	HP REQ.	MOTOR HP
40	1.86	.14	1/3*
60	1.74	.18	1/3*
80	1.62	.23	1/3*
100	1.50	.28	1/3

*** Also ¼ HP DC Motors**

4 GPM PUMP - 1800 RPM MOTOR @ 60° F.

PRES-SURE (PSI)	FLOW RATE (GPM)	HP REQ.	MOTOR HP
40	3.41	.22	1/3
60	3.08	.29	1/3
80	3.23	.36	1/2
100	3.03	.43	1/2

8 GPM PUMP - 1800 RPM MOTOR @ 60° F.

PRES-SURE (PSI)	FLOW RATE (GPM)	HP REQ.	MOTOR HP
40	7.90	.55	3/4
60	7.50	.75	3/4
80	7.00	.95	1
100	6.50	1.15	1 ½

10 GPM PUMP - 1800 RPM MOTOR @ 60° F.

PRES-SURE (PSI)	FLOW RATE (GPM)	HP REQ.	MOTOR HP
40	10.10	.90	1
60	9.90	1.20	1 ½
80	9.60	1.50	1 ½
100	9.40	1.75	2

23 GPM PUMP - 1800 RPM MOTOR @ 60° F.

PRES-SURE (PSI)	FLOW RATE (GPM)	HP REQ.	MOTOR HP
40	22.50	1.53	1 ½
60	22.10	1.92	2
80	21.70	2.25	5
100	21.30	2.70	5

40 GPM PUMP - 1200 RPM MOTOR @ 60° F.

PRES-SURE (PSI)	FLOW RATE (GPM)	HP REQ.	MOTOR HP
40	36.00	1.70	2
60	34.00	2.30	5
80	32.00	2.80	5
100	30.00	3.50	5

TECHNICAL NOTES

PUMP MOTORS

All motors are Thermal Protected unless noted "Not T/P" in CHARACTERISTICS.

HP RATING	VOLTAGE	PHASE	CYCLES	CHARACTERISTICS	OPTION CODE
1/4	12 vdc			Not T/P	410
1/4	24-28 vdc			Not T/P	411
1/3	115	1	60		414
1/3	115	1	60	TEFC	424
1/3	115	1	60	Explosion Proof	425
1/3	115	1	50		426
1/3	230	1	60		428
1/3	230	1	60	TEFC	428T
1/3	230	1	60	Explosion Proof	428X
1/3	230	1	50		429
1/3	230/460	3	60	Not T/P	433
1/2	12 vdc			Not T/P	440
1/2	24-28 vdc			Not T/P	441
1/2	115	1	60		444
1/2	115	1	60	TEFC	445
1/2	115	1	60	Explosion Proof	446
1/2	115	1	50		447
1/2	230	1	60		448
1/2	230	1	60	TEFC	448T
1/2	230	1	60	Explosion Proof	448X
1/2	230	1	50		449
1/2	230	3	60	TEFC	451
1/2	460	3	60	Not T/P-Mtr Strt Rq'd	452
1/2	230	3	60	Not T/P-Mtr Strt Rq'd	454
3/4	115	1	60		455
3/4	230/460	3	60	Not T/P-Mtr Strt Rq'd	456
1	115	1	60		457
1	230/460	3	60	Not T/P-Mtr Strt Rq'd	458
2	115	1	60		CALL
2	230/460	3	60	Not T/P-Mtr Strt Rq'd	CALL
5	115	1	60		CALL
5	230/460	3	60	Not T/P-Mtr Strt Rq'd	CALL